

WHAT IS CLAIMED IS:

1. A method for producing a toothbrush comprising at least two molded parts by injection molding, comprising the steps of:

injection molding of a first of the at least two molded parts forming at least part of a toothbrush handle from a first plastic material in a first step; and

injection molding of a second of the at least two molded parts bearing a brush head from a second plastic material in a subsequent second step, so that one molded part of the first and second molded parts is at least partially enclosed by the other molded part,

wherein the second plastic material does not form a chemical bond with the first plastic material during the injection-molding operation.

2. The method as claimed in claim 1, wherein in the second molding step the second plastic material is injection molded around or into the first molded part forming at least part of a toothbrush handle, the second plastic material at least partially enclosing said first molded part to form a shrink connection.

3. The method as claimed in claim 1, wherein the first plastic material has a lower degree of shrinkage than the second plastic material.

4. The method as claimed in claim 1, wherein in the first molding step a first plastic material is used which is less resistant to a tooth-cleaning agent containing peppermint oil than the second plastic material used in the second molding step.

5. The method as claimed in claim 1, wherein the first plastic material is transparent.

6. The method as claimed in claim 1, wherein styrene acrylonitrile, acrylonitrile-butadiene styrene, polyamide, polycarbonate or polyester is used as the first plastic material.

7. The method as claimed in claim 1, wherein polypropylene is used as the second plastic material.

8. The method as claimed in claim 1, wherein in the first molding step projections or recesses, respectively, are formed on the first molded part at at least part of its contact surface contacting the second molded part and wherein in the second molding step corresponding recesses or projections, respectively, are formed on the second molded part engaging the projections or recesses on the first molded part.

9. The method as claimed in claim 8, wherein annular recesses or projections are formed on the first molded part.

10. The method as claimed in claim 1, wherein at least one of the at least two molded parts is injection molded from two or more plastic material components, and at least one of these plastic material components does not form a chemical bond with the plastic material of the other molded part during the injection molding operation.

11. The method as claimed in claim 10, wherein one of the plastic material components is a thermoplastic elastomer.

12. The method as claimed in claim 1, wherein the first molded part is formed as a sleeve with a front and a rear end face and wherein in the second molding step a first and a second offset surface are formed on the second molded part, the first offset surface acting together with the front end face of the first molded part and the second offset surface acting together with the rear end face of the first molded part.

13. The method as claimed in claim 12, wherein annular projections are formed at the front end face of the first molded part for forming a positive-fitting joint with the second molded part.

14. The method as claimed in claim 12, wherein annular projections are formed at the rear end face of the first molded part for forming a positive-fitting joint with the second molded part.

15. The method as claimed in claim 1, wherein in the first molding step the first molded part is formed with a projection at one of its end faces and wherein in the second molding step the second molded part having a recess corresponding in shape to the projection is injection molded.

16. The method as claimed in claim 1, wherein in the first molding step a cross-bore is formed on the first molded part, the cross-bore serving to receive a matching part provided on the second molded part.

17. A toothbrush comprising:  
a first molded part forming at least part of a toothbrush handle and consisting of a first plastic material,  
a second molded part bearing a brush head consisting of a second plastic material,  
the first and second plastic materials do not form a chemical bond with one another during an injection-molding operation, and  
one of the first and second molded parts being at least partially enclosed by the other one of the first and second molded parts.

18. The toothbrush as claimed in claim 17, wherein the second plastic material of the second molded part at least partially encloses the first molded part to form a shrink connection.
19. The toothbrush as claimed in claim 17, wherein the first plastic material has a lower degree of shrinkage than the second plastic material.
20. The toothbrush as claimed in claim 17, wherein the first plastic material is less resistant to aggressive substances contained in a tooth-cleaning agent than the second plastic material.
21. The toothbrush as claimed in claim 20, wherein the first plastic material is less resistant to peppermint oil contained in a tooth-cleaning agent than the second plastic material.
22. The toothbrush as claimed in claim 17, wherein the first plastic material is transparent.
23. The toothbrush as claimed in claim 17, wherein the first molded part consists of styrene acrylonitrile, acrylonitrile-butadiene styrene, polyamide, polycarbonate or polyester.
24. The toothbrush as claimed in claim 17, wherein the second molded part consists of polypropylene.
25. The toothbrush as claimed in claim 17, wherein the first molded part is provided with projections on at least part of its contact surface contacting the second molded part, said projections engaging corresponding recesses provided on the second molded part.
26. The toothbrush as claimed in claim 25, wherein annular projections are formed on the first molded part.
27. The toothbrush as claimed in claim 17, wherein the first molded part is provided with recesses on at least part of its contact surface contacting the second molded part, said recesses engaging corresponding projections provided on the second molded part.
28. The toothbrush as claimed in claim 27, wherein annular recesses are formed on the first molded part.
29. The toothbrush as claimed in claim 17, wherein at least one of the two molded parts consists of two or more plastic material components of which at least one does not form a chemical bond with the plastic material of the other of the two molded parts during the injection molding operation.
30. The toothbrush as claimed in claim 29, wherein one of the plastic material components is a thermoplastic elastomer.

31. The toothbrush as claimed in claim 17, wherein the first molded part is formed as a sleeve with a front and a rear end face and wherein the second molded part is provided with a first and a second offset surface, the first offset surface acting together with the front end face of the first molded part and the second offset surface acting together with the rear end face of the first molded part.

32. The toothbrush as claimed in claim 31, wherein annular projections are formed at the front end face of the first molded part forming a positive-fitting joint with the second molded part.

33. The toothbrush as claimed in claim 31, wherein annular projections are formed at the rear end face of the first molded part forming a positive-fitting joint with the second molded part.

34. The toothbrush as claimed in claim 17, wherein the first molded part has two end faces, at least one of these end faces being provided with a projection engaging a correspondingly shaped recess provided in the second molded part.

35. The toothbrush as claimed in claim 17, wherein the first molded part is provided with a cross-bore and wherein the second molded part is provided with a matching part engaging the cross-bore.

36. The toothbrush as claimed in claim 17, wherein the first molded part consists of styrene acrylonitrile and the second molded part consists of polypropylene.